

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/630,210	MATTINGLY, JOSEPH E.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Charles E. Cooley	1723	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment after final filed 25 SEP 2006.
2. ☒ The allowed claim(s) is/are 1-21 and 28.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Rodney Skoglund on 2 OCT 2006.
3. The application has been amended as follows:

### **Amendments to the Specification:**

Please replace the second full paragraph on page 18 that begins on line 7 with the following amended paragraph:

Thus, in Fig. 1, a modified kneading element 92, also referred to as an extended S kneading element, having an S-shaped cross-sectional peripheral profile generally has a central portion 94 where the chain lines indicated by numeral 96 represent the substantially circular outer limits limit of central portion 94. Within central portion 94 is a central shaft-receiving bore 98 extending axially for the length of modified kneading element 92. Two opposed lobes 100 extend radially from central portion 94 to an outer periphery ridge 102 at the radially outermost tip of each lobe 100. Each outer periphery ridge 102 defines a surface that is disposed generally equidistant from the outer limit of the central portion 94, with the periphery ridge being shorter in a circumferential direction than the circumferential length of the lobe 100 where the lobe 100 is attached

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to the central portion 94, i.e., at the chain line 96. Each lobe 100 has two lateral sidewall sections 104, 106 extending axially for the length of the extended S kneading element 92 and between the central portion 94 and periphery ridge 102. Notably, each lobe 100 has one lateral sidewall which is concave and the other which is convex. The concave sidewall is preferably the front face of the lobe 100 when the lobe is rotating. Thus, in Fig. 1, the modified kneading element would preferably turn in a clockwise direction. A broad surface 108 can be found at both axial ends of the extended S kneading element 92 wherein the area of broad surface 108 is made up of the cross-sectional surface areas of opposed lobes 100 and the cross-sectional surface area of central portion 94 and wherein the periphery of the broad surface 108 basically defines the cross-sectional profile of the modified kneading element. It is also noted that the broad surfaces of the modified kneading elements of the present invention preferably lie in parallel planes and are perpendicular to the shaft receiving bore.

Please replace the paragraph that begins on page 18, line 26, and continues onto the next page with the following amended paragraph:

Another representative form of a modified kneading element of the present invention is indicated generally by the numeral 110 in Fig. 6. Kneading element 110, also referred to herein as an SS kneading element, has a completely different cross-sectional peripheral profile. SS kneading element 110 generally includes a central portion 112 where the chain lines indicated by numeral 114 represent the substantially

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circular outer ~~limits~~ limit of central portion 112. Within central portion 112 is a central shaft-receiving bore 116 extending axially for the length of SS kneading element 110. Two opposed lobes 118 extend radially from central portion 112 to an outer periphery ridge 120 at the radially outermost tip of each lobe 118. Each outer periphery ridge 120 defines a surface that is disposed generally equidistant from the outer limit of the central portion 112, with the periphery ridge being shorter in a circumferential direction than the circumferential length of the lobe 118 where the lobe 118 is attached to the central portion 112, i.e., at the chain line 114. Each lobe 118 has two lateral sidewall sections 122, 124 extending axially for the length of the SS kneading element 110 and between the central portion 112 and periphery ridge 120. However, in this instance, both lateral sidewalls 122, 124 are concave, providing a much "narrower" cross-sectional profile to the SS kneading element 110. A broad surface 126 can be found at both axial ends of SS kneading element 110 wherein the area of broad surface 126 is made up of the cross-sectional surface areas of opposed lobes 118 and the cross-sectional surface area of central portion 112 and wherein the periphery of the broad surface 126 defines the cross-sectional profile of the modified kneading element. Again, the broad surfaces 126 of the modified kneading elements of the present invention preferably lie in parallel planes and are perpendicular to the shaft receiving bore.

\* \* \*

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4. The above changes were made such to obviate the specification objection made in section 4(a) of the final rejection. The added subject matter is supported by reference characters 94, 96, 112, and 114 in the originally filed drawing figures

5. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, reading "Charles Cooley". The signature is written in a cursive style with a large, looping "C" and a trailing flourish.

Charles E. Cooley  
Primary Examiner  
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3 October 2006